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Ref. Sym: 7223 (380)

## A PROPOSED ZIPPER SYSTEM FOR SMALL WEAPONS

## INTRODUCTION

With the realization of the desires for smaller nuclear warhead systems, it has become necessary to consider smaller Zipper units.

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A Zipper system which shows promise for these applications is described herein.

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The time delay is included in the system which is small and rugged; depending upon the power supply and timer unit selected, the system is capable of being relatively radiation-resistant.

## REQUIREMENTS

A summary of the controlling requirements for this system analysis follows:

Applications

This Zipper is intended for use in 10- to 12-inch-small warheads used in guided missiles (NIKE AJAX, TERRIER, and possibly air-to-air missiles), a ballistic missile (LITTLE JOHN), a (high-g) rocket-assisted depth bomb (ASROC), and an atomic demolition munition (C-ADM).

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The criteria listed below include present information as to the extreme requirements which will be imposed on the Zipper by the above applications. Development of a miniaturized version of the XMC-825 with choice of power supplies such as a rotary-chopper converter, transverter or X-unit voltage supply may prove satisfactory.

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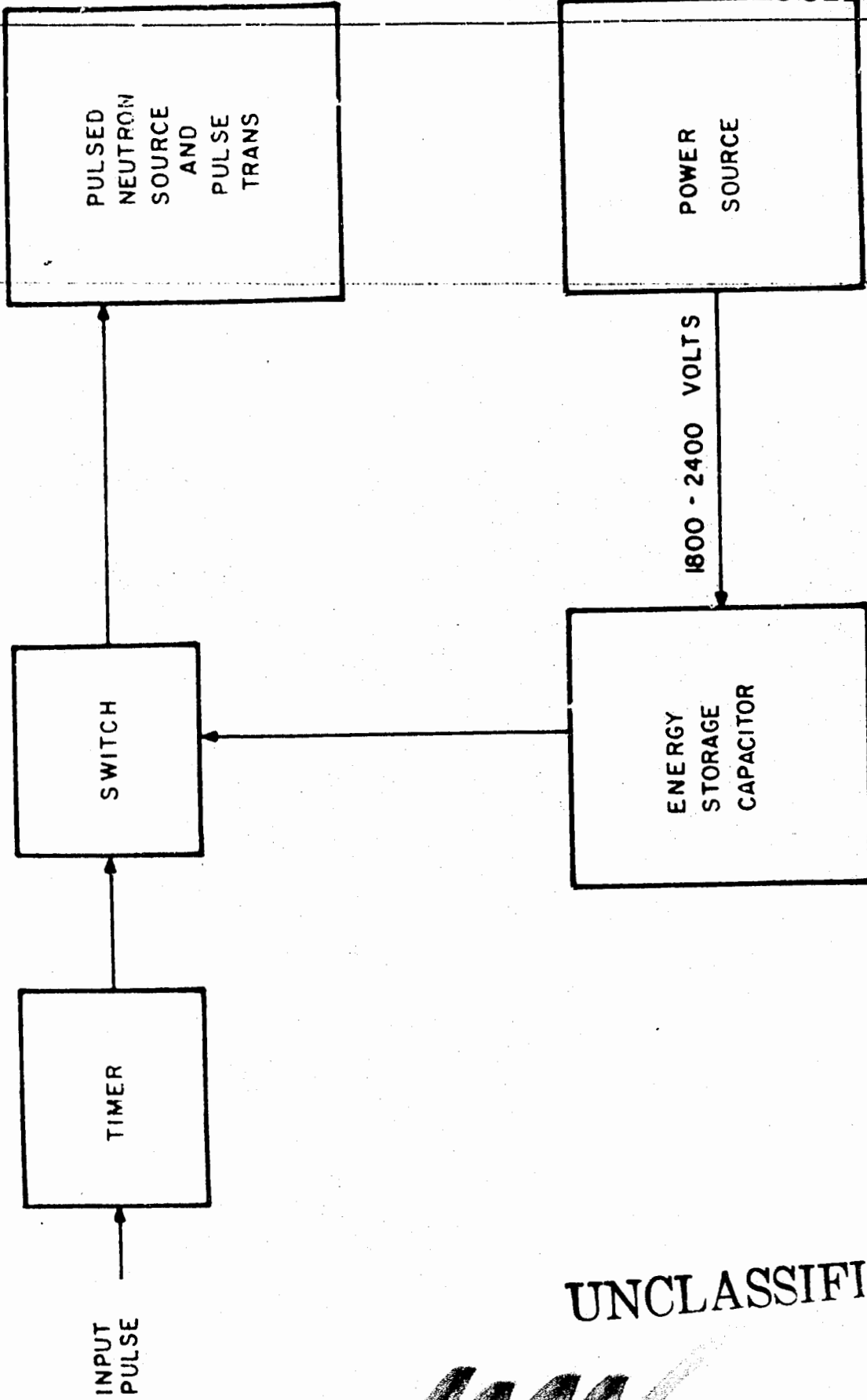


FIG. 1 NEUTRON SOURCE SYSTEM BLOCK DIAGRAM

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